REMARKS

By this reply, claims 23 and 29 have been amended; and new claims 41 and 42 have been added. Upon entry of the amendments, claims 23-42 will be pending in the application. No new matter has been added by the amendments. Favorable consideration of this application is respectfully requested in view of the following.

Rejections Under 35 U.S.C. § 112, ¶1

Claims 23-40 stand rejected under 35 U.S.C. § 112, ¶1.

The Office Action acknowledges that the specification is enabling for precipitated silica or pyrogenic silica, but asserts that the specification does not reasonably provide enablement for any type of silica. While Applicant does not agree with this assertion, to expedite prosecution, claims 23 and 29 have been amended to recite that the silica is "precipitated or pyrogenic silica." See page 5, lines 19-20, of the specification.

The Office Action also asserts that the specification does not provide a written description supporting the recitation of "the amount of silica is greater than the amount of carbon black" in claims 23 and 29. However, this language is not recited in claim 29. While Applicant does not agree with this assertion with respect to claim 23, to expedite prosecution, claim 23 has been further amended to recite that "the amount of silica is greater than or equal to the amount of carbon black in phr minus 5 phr."

Applicant submits that claims 23-40 are in compliance with the provisions of 35 U.S.C. § 112, ¶1. Therefore, withdrawal of the rejections is respectfully requested.

Rejection Under 35 U.S.C. § 102

Claims 29, 30 and 37-39 stand rejected under 35 U.S.C. § 102(e) over Vasseur (U.S. Patent No. 5,871,597) in view of "the evidence in Chauvin" (U.S. Patent Application Publication No. 2004/0092647). This rejection is respectfully traversed.

Claim 29 has been amended to recite a pneumatic tire comprising in its **bead zone** an elastomeric internal filler mix in the form of a profiled member which is located axially to the outside of the upturn of the carcass reinforcement, or a reinforcement profile for the beads of the tire which is located radially above the bead wire and adjacent to said bead wire, the elastomeric internal filler mix comprising a cohesive and low-hysteretic rubber composition comprising an elastomeric matrix and a reinforcing filler. In a tire, the "crown zone" is the opposite part of what is described as the "bottom zone" in the specification. Applicant submits that one skilled in the art would understand that the term "bottom zone" is equivalent in meaning in the art to the term "bead zone." Support for the recitation of the "bead zone" can be found at page 1, last paragraph, lines 1-6, of the specification, which explains:

> Radial-carcass tires for motor vehicles bearing heavy loads at greater or lesser speeds, in particular those for heavy vehicles, have a framework formed of reinforcements or plies of metal wires coated with elastomers. **Such tires comprise, in the bottom zone, one or more bead wires** and a carcass reinforcement extending from one bead wire to the other **and, at the crown**, a crown reinforcement comprising two or more crown plies. (Emphasis added).

In the paragraph bridging pages 4 to 5 of the specification, it is described:

> The elastomeric internal filler compositions or cushion mixes according to the invention, that are arranged **in the bottom zone**, are, for example, profiled members located axially to the outside of the upturn of the carcass reinforcement, the reinforcement profiles **for the beads** of the tire being located between the upturn of the carcass reinforcement and **the bead** reinforcement profiled member located radially above the **bead** wire and adjacent to said **bead** wire and/or axially to the outside of the upturn of the carcass reinforcement. (Emphasis added).

These descriptions also confirm that the "bottom zone" of the tire (i.e., the zone of the bead) is different from the "crown."

The Office Action asserts that Chauvin provides evidence that the crown reinforcement is found in the bottom zone of the tire. Applicants disagree. At paragraph [0003], Chauvin states:

> Radial-carcass tires for motor vehicles bearing heavy loads, in particular for heavy vehicles, comprise reinforcements which are formed of reinforcements or plies of metal wires coated with elastomers. More precisely, these tires comprise, **in their bottom zone, one or more bead wires,** a carcass reinforcement extending from one bead wire to the other **and, in the crown** of the tire, a crown reinforcement comprising at least two crown plies. (Emphasis added).

Contrary to the position taken in the Office Action, Chauvin discloses that the "bottom zone" is a different portion of tire than the "crown" of the tire. Accordingly, Chauvin does not support the Examiner's assertion.

For at least the foregoing reasons, Vasseur (in view of Chauvin) does not disclose each and every feature recited in claim 29. Thus, claim 29 is patentable over Vasseur. Claims 30 and 37-39, which depend from claim 29, are also patentable over Vasseur for at least the same reasons as those for which claim 29 is patentable. Therefore, withdrawal of the rejection is respectfully requested.

Rejections under 35 U.S.C. § 103

A. Claims 31-33 stand rejected under 35 U.S.C. § 103(a) over Vasseur in view of Takeichi et al. (U.S. Patent No. 6,008,295; "Takeichi"). This rejection is respectfully traversed.

Claims 31-33 depend from claim 29. The Office Action asserts that Takeichi cures the deficiencies of Vasseur with respect to claims 31-33. Applicant submits that Takeichi provides no motivation or suggestion to modify Vasseur's crown reinforcement to result in the tire recited in claim 29. Thus, claims 31-33 are patentable over the applied references for at least the same reasons as those for which claim 29 is patentable. Therefore, withdrawal of the rejection is respectfully requested.

B. Claims 31, 32 and 34 stand rejected under 35 U.S.C. § 103(a) over Vasseur in view of Fukahori et al. (U.S. Patent No. 5,844,050; "Fukahori"). This rejection is respectfully traversed.

Claims 31, 32 and 34 depend from claim 29. The Office Action asserts that Fukahori cures the deficiencies of Vasseur with respect to claims 31, 32 and 34. Applicant submits that Fukahori provides no suggestion or motivation to modify Vasseur's crown reinforcement to result in the tire recited in claim 29. Thus, claims 31, 32 and 34 are patentable over the applied references for at least the same reasons as those for which claim 29 is patentable. Therefore, withdrawal of the rejection is respectfully requested.

C. Claim 40 stands rejected under 35 U.S.C. § 103(a) over Vasseur. The rejection is respectfully traversed.

Claim 40 depends from claim 29. For reasons discussed above, Vasseur does not suggest the tire recited in claim 29. Thus, claim 40 is patentable for at least the same reasons as those for which claim 29 is patentable. Therefore, withdrawal of the rejection is respectfully requested.

D. Claims 23-25, 29-31, 35 and 37 stand rejected under 35 U.S.C. § 103(a) over Segatta et al. (U.S. 6,776,206; "Segatta") in view of JP 09302146 ("JP '146"). This rejection is respectfully traversed.

Claim 23, as amended, recites a pneumatic tire comprising **in its bead zone an elastomeric internal filler mix** in the form of a profiled member which is located axially to the outside of the upturn of the carcass reinforcement, or a reinforcement profile for the beads of the tire which is located radially above the bead wire and adjacent to the bead wire. The elastomeric internal filler mix comprises a cohesive and low-hysteretic rubber composition comprising an elastomeric matrix and a reinforcing filler. The elastomeric matrix comprises more than 70 phr of natural rubber or synthetic polyisoprene having double bonds, the majority of which are cis-1,4 bonds. The reinforcing filler is a blend of carbon black having **a BET specific surface area of between 30 and 160 m^2/g** and of precipitated or pyrogenic silica having **a specific surface area of between 30 and 260 m^2/g**. The amount of silica is **greater than or equal to the amount of carbon black in phr minus 5 phr**, and the **blend of carbon black and silica is in an amount between 15 phr and 50 phr**.

In contrast to the tire recited in claim 23, Segatta discloses a **conventional** elastomeric mixture reinforced by carbon black and **optionally** comprising a small amount of silica. Segatta also does **not** specify the type of the optional silica.

At column 4, lines 3-5, Segatta discloses that "**Silica, if used, may** be used in an amount of about 5 to about 25 phr" (emphasis added). Segatta discloses examples using carbon black as the major filler, i.e., **alone** without silica (see Example 1; column 5, line 30). According to Segatta, the examples **without** silicon provided desirable green strength properties (column 6, lines 23-27).

Segatta also discloses examples containing silica (see Example 2; column 6, lines 46-49), but only in a minor fraction of the composition. Segatta does not suggest any composition that contains a **maximum** amount of silica (i.e., 25 phr) and a **minimum** amount of carbon black (i.e., 20 phr), as alleged at page 9, first paragraph of the Office Action. In stark contrast, Segatta discloses using either **no** silica, or only a minor fraction of silica, in the compositions. Accordingly, Segatta discloses that silica is an **optional** component, that compositions that do **not** contain silica provide desirable properties, and that, even if silica is added, it constitutes only a minor proportion of the composition, as compared to the higher amount of carbon black, such as the preferred range of 30-60 phr (see column 3, lines 66-67). Segatta does not suggest that the amount of silica in the tire composition is greater than or equal to the amount of carbon black in phr minus 5 phr, and the blend of carbon black and silica is in an amount between 15 phr and 50 phr, as recited in claim 23.

JP '146 has been cited for allegedly curing the deficiencies of Segatta with respect to the specific surface area values of silica and carbon black recited in claim 23. Applicants disagree.

Moreover, JP '146 discloses using a very high total content of carbon black and silica. In the Abstract, JP '146 discloses that the total of carbon black and silica is 50-150 parts by weight of the composition. Accordingly, JP '146 does not suggest modifying Segatta's composition to contain the amounts of silica and carbon black recited in claim 23.

JP '146 also does not disclose precipitated or pyrogenic silica having a specific surface area of between 30 and 260 m^2/g, as claimed.

Accordingly, for at least these reasons, claim 23 is patentable. Claims 24, 25, 35 and 37, which depend from claim 23, are also patentable over the applied references for at least the same reasons as those for which claim 23 is patentable.

Claim 29 recites that "the reinforcing filler **is** precipitated or pyrogenic silica having a specific surface area of between 30 and 260 m^2/g" (emphasis added). That is, silica is the **sole** reinforcing filler. Segatta discloses that silica is optional. To the extent that the Office Action has taken the position that Segatta's disclosed carbon black additive material is a reinforcing filler, Segatta does not suggest adding silica, but **not** also carbon black, as a reinforcing filler in the disclosed composition. Accordingly, the applied references also do not suggest the tire recited in claim 29. Thus, claim 29 is also patentable.

Claims 30, 31 and 37, which depend from claim 29, are also patentable over the applied references for at least the same reasons as those for which claim 23 is patentable. Therefore, withdrawal of the rejection is respectfully requested.

E. Claims 26, 27, 32 and 33 stand rejected under U.S.C. § 103(a) over Segatta in view of JP '146, and further in view of Takeichi. The rejection is respectfully traversed.

Claims 26 and 27 depend from claim 23, and claims 32 and 33 depend from claim 29. As disclosed above, JP '146 does not cure the deficiencies of Segatta with respect to the claimed subject matter.

Applicant submits that Takeichi also fails to cure the above-described deficiencies of Segatta with respect to the tire recited in claims 23 and 29. Thus, claims 26, 27 and claims 32 and 33, respectively, are also patentable over the applied references for at least the same reasons as those for which claims 23 and 29, respectively, are patentable. Therefore, withdrawal of the rejection is respectfully requested.

F. Claims 26, 28, 32 and 24 **(34?)** stand rejected under 35 U.S.C. § 103(a) over Segatta in view of JP '146, and further in view of Fukahori. The rejection is respectfully traversed.

Claims 26 and 28 depend from claim 23, and claims 32 and 34 depend from claim 29. As disclosed above, JP '146 does not cure the deficiencies of Segatta regarding the claimed tire. Applicant submits that Fukahori also fails to cure the above-described deficiencies of Segatta with respect to the tire recited in claims 23 and 29. Thus, claims 26 and 28 and claims 32 and 34, respectively, are also patentable over the applied references for at least the same reasons as those for which claims 23 and 29, respectively, are patentable. Therefore, withdrawal of the rejection is respectfully requested.

G. Claims 38-40 stand rejected under 35 U.S.C. § 103(a) over Segatta in view of JP '146, and further in view of Vanel (U.S. Patent No. 6,211,278; "Vanel"). The rejection is respectfully traversed.

Claims 38-40 depend from claims 23 and 29. Applicant submits that Vanel is directed to rubber compositions for tire treads, not for the bead zone of a tire. As such, Vanel provides no motivation to modify Segatta's compositions to result in the claimed tire. Therefore, withdrawal of the rejection is respectfully requested.

New Claims

Claims 41 and 42 depend from claims 23 and 29, respectively, and recite that "silica is present in an amount of between 30 and 40 phr." Support for claims 41 and 42 is provided, for example, in Table 3, at page 13 of the specification. See also *In re Wertheim*, 191 U.S.P.Q.2d 90 (C.C.P.A. 1976), which is described at M.P.E.P. § 2163.05(III). Applicant submits that claims 41 and 42 are also patentable.

Conclusion

For the foregoing reasons, allowance of the application is respectfully requested. Should the Examiner wish to discuss this reply, Applicant's undersigned representative can be reached at the telephone number given below.

Respectfully submitted,

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